REMARKS/ARGUMENTS

Reconsideration of this application is requested. This Amendment accompanies a Request for Continued Examination. Claims 1-26 will be active in the application subsequent to entry of this Amendment. Previous claims 1-4 have been amended in order to more particularly point out and distinctly claim that which applicants regard as their invention while new claims 14-26 have been added directed to preferred aspects of the disclosure.

In this Amendment, independent claims 1-4 have been amended to specify that the substrate is flat. The shape of the substrate will be apparent from the description of the invention, for instance, such substrates are used for hard disc drives in large-capacity storage devices; *see* [0002]. Note also the configurations shown in Figures 1(a) and (b) as well as the faces of the molds in Figures 2(a) and 2(b). Finally note the discussion of flatness at paragraph [0035]. This feature is also included in newly added independent claims 14-17 and find adequate basis in the description of the invention for the reasons just indicated.

Claims 1-4 also state that a glass gob as the raw material for the blank is supplied to a lower mold member while it is in a molten state. This derives from paragraph [0012], first three lines of the description.

The primary reference relied upon in the Official Action JP 63-265833 to Inoue et al produces a glass article that is curved, such as a lens and not flat.

New claims 14-26 specify a series of steps and in particular that a cooling step occurs while the molded article (not yet in the substrate blank) is cooled while it is in a non-pressed state. This is distinguishable from the procedures of Inoue where the product is cooled while it is in a pressed state. As featured in new claims 14-17 the molded article, after press molding, is released from the upper mold member and mold parts. This is followed by cooling the molded article to produce the substrate blank as discussed in the description of the invention in paragraph [0029] (*see* in particular the last three lines) as well as paragraph [0034] (*see* the entire paragraph). In their description applicants discuss an undulation problem that takes place at the cooling step due to non-uniform heat distribution caused by various molding members contacting the molded article at the time of cooling. Applicants have found that if the molded article (not

yet a substrate blank) is not in contact with the upper mold member, upper sleeve, etc., but only on the lower mold member.

Applicants now address the issues raised in the most recent Official Action, the Final Rejection of January 20, 2006, which pertain only to claims 1-13.

In Office Action, page 2, item 1, the Examiner states with regard to Inoue et al (JP 63-265833) that "Inoue discloses a method for producing substrate blank. As shown in figure 2 of Inoue, ... The method comprises an upper mold 11 and lower mold 12 having the glass substrate being pressed in between the two molds. The surrounding edge portion of the substrate 14 is free as shown in figure 2, since the surrounding edge does not come in contact with any mold surface or mold part and thus not having surface marks on the surrounding edge"(A).

What needs to be determined is – what "method" is being discussed for, as will be explained below, Inoue describes, in addition to his own method, prior art (prior to Inoue) methods from which Inoue's method is distinguished.

First, Inoue's method is shown by Fig. 1, not by Fig. 2. As shown in Fig. 1 of Inoue, a glass material 4 (shaped glass lens 4) is in contact with a sleeve 3. That is, Inoue pays no attention to the construction stated by the Examiner, i.e. the arrangement in which "the surrounding edge does not come in contact with any mold surface or mold part", nor does Inoue discuss any function or effect produced by this arrangement.

In Inoue's discussion of the prior art methods, Inoue refers to two prior art references. One is the prior art (JP-A-60-145919). This prior art to Inoue describes its method as quoted in applicant's response of November 14, 2005; *see* the paragraph bridging pages 3 and 4. Inoue discusses the prior art by referring to "figure 2 of Inoue" as quoted in previous Response, page 3, second paragraph.

Inoue states that "the glass material is supported by the support member 15" (lines 6-7). The glass material supported by the support member 15 is brought into a mold. The glass material that has been brought into the mold is shown by Fig. 2 of the prior art (JP-A-60-145919), in which the glass material is still supported.

This prior art (JP-A-60-145919) to Inoue explicitly describes "a press-molding method for a highly accurate glass molded product by supporting a circumferential portion..." (previous Response, page 3, the last 2 lines). Therefore, the above statement (underlined portion (A)) of

the Examiner's is only based on what the "figure 2 of Inoue" seems to show. Incidentally, the "figure 2 of Inoue" shows a state where the glass gob is being pressed or the pressing of the glass gob is finished, so that it is bent downward to some extent.

The point is that Inoue's invention is shown by Fig. 1 (a glass material 4 (shaped glass lens 4) is in contact with a sleeve 3 as explained in the above) on the basis of the prior art invention shown by Inoue's Fig. 2. If the figure 2 should show what the Examiner states (the surrounding edge does not come in contact with any mold surface or mold part and thus not having surface marks on the surrounding edge"), there is no reason why Inoue would disregard such an arrangement and effect.

The other prior art to Inoue is JP-A-58-84134 whose claim 1 describes a "step of ... shaping a preform into a form that agrees with an internal form of said mold...". Since it describes that the form of the preform is in agreement with the internal form of a mold, there is no space that keeps the preform apart from the mold during its pressing.

As is clear from the above, both Inoue and the prior art to Inoue describe the effect that a glass material, a lens, or a glass gob that is being pressed is supported by a support member. Therefore, it is difficult for applicant to understand where in Inoue the Examiner's method noted above is described, particularly concerning an arrangement that the surrounding edge does not come in contact with any mold surface or mold part and thus not having surface marks on the surrounding edge, if the mold part is the above support or support member.

Further, Inoue produces a lens that is curved, not flat. Applicant's claims now specify a flat surface, as explained above.

With regard to the prior art reference '919 to Inoue, in Office Action, page 6, third paragraph, the Examiner states that "A reading by the USPTO translator does not support applicant's allegation that the circumferential portion is supported". No matter what the translator says with regard to the prior art reference '919, the fact is that, for example, claim 1 on left column of the very first page of the published JP-A-60-145919 begins with "supporting a circumferential portion" in the Japanese language. Further, as quoted in previous Response, page 3, last two lines, the prior art reference '919 includes the statement "by supporting a circumferential portion".

Further, the prior art reference '919 does not discuss any effect produced by the above arrangement that "the surrounding edge does not come in contact with any mold surface or mold part".

Applicants are uncertain of the exact meaning of the statement: "A reading by the USPTO translator does not support applicant's allegation that the circumferential portion is supported" (Office Action, page 6, third paragraph). Does this negative sentence apply only to "the circumferential portion"?

In Office Action, page 6, first paragraph, the Examiner states that "element 15 is the supporting member holding the glass blank which as explicitly shown in figure 2 does not contact the circumference of the glass".

Does this indicate the Examiner thinks that the element 15 supports the glass blank while contacting not the circumference but some other portion as an interpretation of the "figure 2 of Inoue"?

If this is the case, then, applicants seem to have two arguments. One is that, as is clear from the above discussion, Fig. 2 of Inoue is part of Fig. 3 of the prior art reference to Inoue and that the inventor of the prior art reference recognizes that the portion at which the support member is in contact with is a circumference since he describes "circumferential portion". Fig. 3 of '919 shows the state where the glass gob 1 is pressed downward with the upper mold member 4. In this case, since the glass gob 1 (lens) is pressed downward, the support is a little far from what may be called the "circumferential portion".

The other is that Inoue does not at all address such an arrangement as suggested by the Examiner. In other words, the Examiner's position is based on the Examiner's interpretation of "Fig. 2 of Inoue".

It appears that the Examiner focuses only on his interpretation of the "Figure 2 of Inoue" and simply disregards not only Inoue's explanation about Figure 2 but also the prior art to Inoue.

As is discussed in the above, the Examiner's interpretation of the "figure 2 of Inoue" is neither based on Inoue nor based on the prior art to Inoue. The Examiner's interpretation appears to be an afterthought taken after knowledge of the present invention and by taking advantage of the ambiguous showing of the "figure 2 of Inoue" in question, since Inoue and the

prior art to Inoue describe nothing concerning the Examiner's postulated arrangement attributed to and the effect produced by the construction.

The "figure 2 of Inoue" appears to show that there is a space between "the surrounding edge" and "mold part".

In this connection, the JP-A-60-145919 prior at to Inoue describes that "In this example, the lower end surface of the spacer 2 is placed on a stage 7 formed on the outer circumference of convex-shaped molding surface of the lower mold member 5, whereby a predetermined annular space is generated between the outer circumference of the lower mold member 5 and the spacer 2 (page 3, left upper column, last 5 lines in its Japanese text)...as shown in Fig. 3,... the pressing proceeds. In this case, the support 3 has full ductility and is easily deformed by the plastic flow of excess amount of the glass gob 1, so that the support 3 in no case inhibits the escaping of the excess amount" (page 3, right upper column, lines 3 to 15 in its Japanese text).

The above passage means that the support 3 is present together with the glass gob 1 during the pressing of the glass gob 1 and further that the circumference of the support is in contact with the spacer 2. Please refer to Fig. 3 of the JP-A-60-145919 prior art to Inoue, in which the support 3 is in contact with the spacer 2 because the support 3 (element 15 in the figure 2 of Inoue) is supported by the spacer 2.

Further, the JP-A-60-145919 prior art describes the following: "when the above cylindrical spacer is used as a distance-regulating member, there may be employed a constitution in which the form thereof, in particular, the form of its inner side surface is designed as required, for example, a step is provided in a middle portion, and the circumference of the glass gob is directly engaged therewith.

However, when the cylindrical spacer is used as a distance regulating member as shown in Example, generally, it is advantageous to support the circumference of the glass gob with a thin-plate-shaped support member different from the spacer" (page 5, left lower column, last 6 lines to right lower column, line 3).

In other words, the JP-A-60-145919 prior art does not at all follow the Examiner's proposed construction given above. Needless to say that the JP-A-60-145919 prior art does not describe any effect produced by such a constitution.

Applicants have noticed that the JP-A-60-145919 (application No. 58-249247) corresponds to US Patent 4,591,373[1]. Unlike the Japanese version, claim 1 of this U.S. patent does not describe "supporting". However, *see* Figs. 1, 2 and 3 of the US Patent, where a glass piece 1 is supported with a support member 3. Figs. 1 to 5 of this US patent are the same as Figs. 1 to 5 of the JP-A-60-145919 prior art. Further, applicant's translation made above corresponds to column 8, lines 51 to 63 of this patent. The inventor of US patent describes that a glass is in contact with the spacer or that glass is advantageously supported by the support member as shown in Figs. 1 to 3 although the wording of "by supporting a circumferential portion" is omitted from the claim 1 of this U.S. Patent.

As to the figure 2 of Inoue, Inoue describes as quoted in the previous Response, a paragraph bridging pages 2 and 3 and page 3, second paragraph (JP-63-265833, paragraph bridging right column of page 183 to left upper column of page 184). That is all that Inoue describes with regard to the figure 2 of Inoue. This figure 2 of Inoue is found in JP-A-60-145919 which fortunately has the corresponding US patent No. 4,591,373. As one will see, the figure 2 of Inoue appears as Fig. 3 in this US patent. In this US patent, please refer to column 8, lines 51 to 63, which describes to the effect that when a spacer is cylindrical, the spacer itself is designed so as to have a stepped portion on which the glass piece is supported. That is, the bottom peripheral portion of the glass is in contact with the spacer per se (which may also be called a "sleeve"). Further, it is described that it is generally advantageous to support the bottom peripheral portion of the glass piece by a support member. That is, the bottom peripheral portion of the glass is in contact either with the spacer or with the support member. From this it can be understood that support member 3 appears in all of Figs. 1 to 3 of the US patent since it is advantageous, and the support member 15 also appears in the "figure 2 of Inoue" as it is derived from '919. Therefore, the Examiner's statement that "The surrounding edge portion of the substrate 14 is free as shown in figure 2, since the surrounding edge does not come in contact with any mold surface or mold part and thus not having surface marks on the surrounding edge is not correct. That is because the "any mold surface" is the spacer or the "mold part" is the support member.

[1] This is already of record as cited in the Official Action of February 1, 2005.

As will be seen, the invention of the "figure 2 of Inoue" that the Examiner refers to exists not in the prior art but only in the Examiner's interpretation of it. Accordingly, Inoue et al describe nothing concerning any effect produced by the Examiner's arrangement as explained above.

Favorable consideration of claims 1-26 is requested. Should the examiner require further information please contact the undersigned by telephone.

Respectfully submitted,

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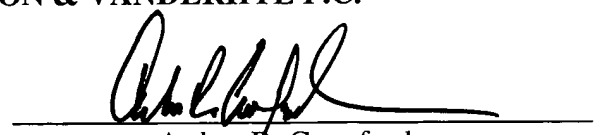
By: 

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